Abstract

A force adjusting mechanism for an orthodontic appliance wherein the appliance functions to move teeth and/or to expand the dental arch. The mechanism includes a shaft operatively coupled at opposite ends between a first portion of the appliance which is anchored in the patient's dental arch and a second portion of the appliance which applies force to one or more of the patient's teeth. A lock is slidable along the shaft to compress a spring between the lock and the second portion of the appliance. Co-operating structures on the shaft and on the lock provide a unidirectional ratchet movement of the lock along the shaft. Thus, the lock may be advanced one step at a time in one direction only, preferably manually using an implement for engaging the lock, to compress the spring to apply force to one or more of the patient's teeth. Advantageously, this may be done by the patient or a parent or guardian without the need for an office visit to a clinician. The cooperating structures can include a series of successive detent formations along the shaft and a component on the lock moveable into and out of the detent formations thereby avoiding thread stripping or slippage.